

*The British Journal
for the
Philosophy of Science*

BJS

Volume VIII
May 1957 to February 1958

Thomas Nelson and Sons Ltd. Edinburgh 9
1958

Reprinted by permission of the original publishers

KRAUS REPRINT LTD.

Nendeln, Liechtenstein

1966

© THOMAS NELSON AND SONS LTD 1958

Parkside Works Edinburgh 9
36 Park Street London W1
312 Flinders Street Melbourne C1
302-304 Barclay's Bank Buildings Commissioner and
Kruis Streets Johannesburg

THOMAS NELSON AND SONS (CANADA) LTD
91-93 Wellington Street West Toronto 1

THOMAS NELSON AND SONS
19 East 47th Street New York 17

SOCIÉTÉ FRANÇAISE D'ÉDITIONS NELSON
97 rue Monge Paris 5

Printed in Germany

Lessing-Druckerei - Wiesbaden

Contents

ARTICLES, NOTES AND COMMENTS, MISCELLANEOUS

ARTICLES

	PAGE
THE SCOPE AND LANGUAGE OF SCIENCE by W. V. Quine	I
ON THE OBJECTIVE OF EINSTEIN'S WORK by W. H. McCrea	18
HOBBS AND HULL—METAPHYSICIANS OF BEHAVIOUR by R. S. Peters and H. Tajfel	30
A COMPARISON OF PROCESS AND NON-PROCESS THEORIES IN THE PHYSICAL SCIENCES by Brian Ellis	45
PROBLEM SOLVING by Michael Polanyi	89
HISTORICAL EXPLANATION IN THE SOCIAL SCIENCES by J. W. N. Watkins	104
WHAT MAKES A SUBJECT SCIENTIFIC ? by W. B. Gallie	118
DIATHESIS, THE SELF-WINDING WATCH, AND PHOTOSYNTHESIS by H. A. C. Dobbs	140
A LOGICAL ANALYSIS OF 'PSYCHOLOGICAL ISOMORPHISM' by E. H. Madden	177
THE PLACE OF HISTORICAL STATEMENTS IN BIOLOGY by R. P. Gould	192
SOCIETAL LAWS by M. Mandelbaum	211
HOW ECONOMIC THEORY MAY MISLEAD by A. Martin	225
OCKAM'S RAZOR AND THE UNIFICATION OF PHYSICAL SCIENCE by R. O. Kapp	265
ON PREDICTION AND EXPLANATION by N. Rescher	281

NOTES AND COMMENTS

IRREVERSIBILITY: OR, ENTROPY SINCE 1905 by K. R. Popper	151
A NOTE ON MULTI-DIMENSIONAL TIME by C. T. K. Chari	155
INSTRUMENTALISM AND RELATIVITY by W. B. Bonnor	291
A THIRD NOTE ON DEGREE OF CORROBORATION OR CONFIRMATION by K. R. Popper	294
ON THE 'SPACE' AND 'TIME' OF HALLUCINATIONS by C. T. K. Chari	302
REPLY TO PROFESSOR R. O. KAPP by H. A. C. Dobbs	306

DISCUSSION

SOME ASPECTS OF PROBABILITY AND INDUCTION: A REPLY TO MR BENNETT by William Kneale	57
MR DOBBS ON 'DIATHESIS, THE SELF-WINDING WATCH, AND PHOTOSYNTHESIS' by R. O. Kapp	159
MEN AND MACHINES by T. S. Szasz	310
INDUCTION AND NON-INSTANTIAL HYPOTHESIS by R. Das	317
A REPLY TO DR DAS'S CRITICISMS by J. O. Wisdom	325

MISCELLANEOUS

RECENT PUBLICATIONS ON THE PHILOSOPHY OF SCIENCE	87, 174, 263, 351
ANNOUNCEMENTS	84, 160, 176, 352
REPORT ON ANNUAL CONFERENCE OF THE PHILOSOPHY OF SCIENCE GROUP	85
MEETINGS OF THE PHILOSOPHY OF SCIENCE GROUP	258
ABSTRACTS	259

INDEX OF AUTHORS

ARTICLES

- Dobbs, H. A. C., *Diathesis, the Self-winding Watch, and Photosynthesis*, 140
 Ellis, Brian, *A Comparison of Process and Non-Process Theories in the Physical Sciences*, 44
 Gallic, W. B., *What Makes a Subject Scientific?*, 118
 Gould, R. P., *The Place of Historical Statements in Biology*, 192
 Kapp, R. O., *Ockam's Razor and the Unification of Physical Science*, 265
 Madden, Edward H., *A Logical Analysis of 'Psychological Isomorphism'*, 177
 Mandelbaum, Maurice, *Societal Laws*, 211
 Martin, Anne, *How Economic Theory may Mislead*, 225
 McCrea, W. H., *On the Objective of Einstein's Work*, 18
 Peters, R. S. and Tajfel, H., *Hobbes and Hull—Metaphysicians of Behaviour*, 30
 Polanyi, Michael, *Problem Solving*, 89
 Quine, W. V., *The Scope and Language of Science*, 1
 Rescher, Nicholas, *On Prediction and Explanation*, 281
 Tajfel, H. and Peters, R. S., *Hobbes and Hull—Metaphysicians of Behaviour*, 30
 Watkins, J. W. N., *Historical Explanation in the Social Sciences*, 104

NOTES AND COMMENTS

- Bonnor, W. B., *Instrumentalism and Relativity*, 291
 Chari, C. T. K., *A Note on Multi-Dimensional Time*, 155
 Chari, C. T. K., *On the 'Space' and 'Time' of Hallucinations*, 302
 Dobbs, H. A. C., *Reply to Professor R. O. Kapp*, 306
 Popper, K. R., *Irreversibility; or, Entropy since 1905*, 151
 Popper, K. R., *A Third Note on Degree of Corroboration or Confirmation*, 294

DISCUSSIONS

- Das, R., *Induction and Non-Instantial Hypothesis*, 317

- Kapp, R. O., *Mr Dobbs on 'Diathesis, the Self-winding Watch, and Photosynthesis'*, 159
 Kneale, William, *Some Aspects of Probability and Induction: A Reply to Mr Bennett*, 57
 Szasz, Thomas S., *Men and Machines*, 310
 Wisdom, J. O., *A Reply to Dr Das's Criticisms*, 325

ARTICLE-REVIEWS

- Agassi, J., *Duhem versus Galileo*, 237
 Ashby, W. Ross, *Pavlov Reconditioned*, 249
 Bronowski, J., *The Scandal of Philosophy*, 329
 Cassirer, Eva, *Methodology and Quantum Physics*, 334
 Chitty, D., *Population Studies and Scientific Methodology*, 64
 Tizard, R. H., *A Cybernetic Interpretation of Economics*, 161

REVIEWS

- Black, Max, *Problems of Analysis*, review by W. Mays, 164
 Bornemisza, Stephen, *The Unified System Concept of Nature*, review by Eva Cassirer, 70
 Broda, Engelbert, *Ludwig Boltzmann*, review by R. O. Kapp, 81
 Cardwell, D. S. L., *The Organisation of Science in England*, review by R. F. J. Withers, 252
 Carnap, R., Neurath, O. and Morris, C. W. (Eds.), *International Encyclopedia of Unified Science*, review by J. O. Wisdom, 256
 Cherry, Colin (Ed.), *Information Theory*, review by W. Ross Ashby, 80
 Coulson, C. A., *Science and Christian Belief*, review by P. Alexander, 76
 Gregg, John R., *The Language of Taxonomy*, review by R. F. J. Withers, 171
 Hertz, Heinrich, *The Principles of Mechanics Presented in a New Form*, review by G. J. Whitrow, 257
 Jordan, Pascual, *Science and the Course of History*, review by H. B. Acton, 84

INDEX OF AUTHORS

- Jung, C. G., and Pauli, W., *The Interpretation of Nature and the Psyche*, review by C. K. Mundle, 73
- Knox, Crawford, *The Idiom of Contemporary Thought*, review by G. E. Denyer, 341
- Lawrence, N., *Whitehead's Philosophical Development*, review by J. H. Woodger, 348
- Mainx, Felix, *Foundation of Biology*, review by D. F. Cole, 253
- Mascall, E. L., *Christian Theology and Natural Science*, review by G. J. Whitrow, 168
- Meyer, H., *Le Rôle Médiateur de la logique*, review by C. Lejewski, 349
- Morris, C. W., Carnap, R. and Neurath, O. (Eds.), *International Encyclopedia of Unified Science*, review by J. O. Wisdom, 256
- Neumann, John von., *Mathematical Foundations of Quantum Mechanics*, review by P. K. Feyerabend, 343
- Neurath, O., Carnap, R. and Morris, C. W. (Eds.), *International Encyclopedia of Unified Science*, review by J. O. Wisdom, 256
- Pauli, W. and Jung, C. G., *The Interpretation of Nature and the Psyche*, review by C. K. Mundle, 73
- Quastler, Henry (Ed.), *Information Theory in Psychology: Problems and Methods*, review by W. Ross Ashby, 83
- Sambursky, S., *The Physical World of the Greeks*, review by E. H. Hutten, 347
- Schrödinger, Erwin, *Expanding Universes*, review by J. T. Davies, 78
- Wedberg, Anders, *Plato's Philosophy of Mathematics*, review by C. Lejewski, 172
- Wilson, Curtis, *William Heytesbury*, review by W. Kneale, 254
- Woodger, J. H., *Physics, Psychology, and Medicine*, review by R. O. Kapp, 67
- Whyte, Lancelot L., *Accent on Form*, review by D. Gabor, 82

EDITORIAL BOARD

- J. D. BERNAL, M.A., F.R.S. Professor of Physics, Birkbeck College, University of London
- H. DINGLE, D.Sc., A.R.C.S. Professor of History and Philosophy of Science, University College, University of London
- J. C. ECCLES, M.A., D.PHIL., F.R.S. Professor of Physiology, Australian National University, Canberra
- SIR HAROLD JEFFREYS, M.A., D.Sc., F.R.S. Fellow of St. John's College, and Plumian Professor of Astronomy and Experimental Philosophy in the University of Cambridge
- M. POLANYI, D.Sc., F.R.S. Professor of Social Studies, Victoria University of Manchester
- K. R. POPPER, M.A., PH.D., D.LIT. Professor of Logic and Scientific Method, London School of Economics, University of London
- EARL RUSSELL (Bertrand Russell), O.M., M.A., F.R.S. Fellow of Trinity College, Cambridge ; Nobel Laureate in Literature, 1950
- E. SCHRÖDINGER, D.Sc., For.Mem.R.S. Senior Professor, Dublin Institute for Advanced Studies ; Nobel Laureate in Physics, 1933
- CHARLES SINGER, M.A., M.D., D.LITT., D.Sc., F.R.C.P., F.S.A. Emeritus Professor of History of Medicine, University of London ; Honorary Fellow of Magdalen College, Oxford
- J. H. WOODGER, D.Sc. Professor of Biology, Middlesex Hospital Medical School, University of London

Editor

- J. O. WISDOM, PH.D. Reader in Logic and Scientific Method, The London School of Economics and Political Science, University of London

EDITORIAL COMMITTEE

(1957-8)

- | | |
|---|--|
| Professor R. O. KAPP (<i>Chairman</i>) | DR A. W. STONIER |
| DR G. J. WHITROW (<i>Vice Chairman</i>) | MR R. F. J. WITHERS (<i>Finance Officer and</i> |
| DR E. H. HUTTEN (<i>Hon Secretary</i>) | <i>Acting Editor</i>) |
| DR J. O. WISDOM (<i>Editor</i>) | DR W. MAYS (<i>Representing Northern</i> |
| DR A. C. CROMBIE | <i>Branch</i>) |
| DR MARY B. HESSE | |

Digitized by the Internet Archive
in 2023

MEMBERS OF THE PHILOSOPHY OF SCIENCE GROUP *

[F = Foundation Member

H = Honorary Member]

- Abrams (Prof. J. W.), 94 Broadway Ave, Ottawa
 F Acton (Prof. H. B.), Dept of Philosophy, Bedford College, London, N.W.8
 Agassi (J.), London School of Economics, Houghton St, London W.C.2
 Alexander (H. G.), Dept of Philosophy, The University, Manchester 13
 Alexander (P.), Dept of Philosophy, The University, Bristol 8
 Allen (W. E. H.), Technical College, Halifax, Yorks.
 Andrews (Prof. D. H.), Johns Hopkins University, Baltimore, 18, Maryland, U.S.A.
 Andrzejewski (Dr S.), The Platt, Old Amersham, Bucks.
 Anthony (Col. H. D.), 102 Norcot Rd, Tilehurst, Reading
 F Armitage (Dr A.), University College, London, W.C.1
 Ashby (Dr W. Ross), Barnwood House, Gloucester
 F Ayer (Prof. A. J.), Dept of Philosophy, University College, London, W.C.1
- Ball (R. R. J.), 211 Unthank Rd, Norwich
 Banner (Dr E. R.), 50A Liverpool Rd, Chester
 Barlow (W.), 3B Albert Court, Kensington Gore, London, S.W.7
 Barnes (Prof. W. H. F.), 8 Church St, Durham
 Bartlett (Prof. M. S.), The University, Manchester 13
 Barton (Dr M. P.), Social Sciences Research Centre, 39 George Square, Edinburgh 8
 Begg (J. C.), 12 Fifield St, Dunedin, New Zealand
 Bellamy (F.), 29 Gough Rd, Birmingham 15
 Bentham (Muriel Annie), 7 Southwood Avenue, Coulsdon, Surrey
 F Bernal (Prof. J. D.), F.R.S., Birkbeck College, London, W.C.1
 F Blair (Dr G. W. Scott), National Institute for Research in Dairying, Shinfield, nr. Reading
 F Boltz (C. L.), 20 Willow Rd, London, N.W.3
 F Braithwaite (Prof. R. B.), King's College, Cambridge
 Brooke (N. A.), Ashley Bell Hill, Petersfield, Hants
 Brookes (B. C.), Dept of Electrical Engineering, University College, Gower St, London W.C.1
 Burch (P. R. J.), Dept of Medical Physics, The General Infirmary, The University, Leeds 1
 Burnett (Dr J. H.), 21 Bertram Drive, Meols, Cheshire
 F Butler (F. H. C.), Ravensmead, Keston, Kent

* Revised to 21 February, 1958

MEMBERS OF THE PHILOSOPHY OF SCIENCE GROUP

- F Caldin (Dr E. F.), 41A Claremont Rd, Leeds 6
 Calvert (Dr H. R.), The Science Museum, London, S.W.7
 Campbell (Dr L. E.), 5 St Mathews Avenue, Surbiton, Surrey
- F Carter (Dr G. S.), Corpus Christi College, Cambridge
 Cassirer (Eva), Berlin-Dahlem, Wildpfad 28, Germany
 Chance (Dr M. R. A.), 2 Dunage Rd, Northfield, Birmingham 31
 Chilton (D.), The Science Museum, London, S.W.7
 Clark (Pamela M.), Dept of Philosophy, The University, Liverpool 7
 Clarke (E. J. W.), 67 Walsingham Gardens, Stoneleigh, Ewell, Surrey
 Cornforth (M. C.), 61 Talbot Rd, London, N. 6
 Cousin (Prof. D. R.), Dept of Philosophy, The University, Sheffield
- F Crombie (Dr A. C.), All Soul's College, Oxford
 Cruikshank (D. W. J.), Dept of Chemistry, The University, Leeds 2
 Cunningham (A. D.), 6a Albert Rd, Birkdale, Southport
 Cushen (Dr W.E.), Operations Research Office, G3 Division, H.Q: USAREUR
 APO403, New York
- Davies (E. Rowan), 13 Bryanston Mansions York St, London, W.1
 de Monchaux (Dr Cecily), 32 Fitzroy Square, London, W.1
 Denyer (G. E.), Flat 25, 4 Crane Court, Fleet St, London, E.C.4
 Dickson (D.), 153 Kingsway, Hove 3, Sussex
 Dingle (Prof. H.), 104 Downscourt Rd, Purley, Surrey
 Dobbs (H. A. C.), c/o Messrs. Urwick Orr & Partners Ltd., 21 MacKenzie
 Street, Slough, Bucks
 Douglas (G. O.), 1 Patrick Rd, West Bridsford, Nottingham
 Dyason (Diana), Dept of History and Methods of Science, University of
 Melbourne, Carlton N.3, Victoria, Australia
- Eccles (Prof. J. C.), F.R.S., Australian National University, Canberra
 Edmonstone (Rev. G. R.), St Aidan's College, Grahamstown, South Africa
 Edwards (A. W. J.), 9 Beechmount Grove, Hengrove, Bristol 4
 Ehrenberg (A. S. C.), Institute of Psychiatry, Maudsley Hospital, London, S.E.5
- F Eisenschitz (Prof. R. K.), Queen Mary College, Mile End Rd, London, E.1
 Emmet (Prof. Dorothy), The University, Manchester 13
 Evans (Dr G. I.), 13E Melbury Rd, London, W.14
 Eyles (Mrs J. M.), 200 Old Brompton Rd, London, S.W.5
- Fairbrother (H.), 170 Queens Rd, Wimbledon
 Farradane (D.), 'Torrán', Crofton Rd, Orpington, Kent
 Farrar (Dr Kathleen R.), Homeland, Navigation Rd, Altrincham, Cheshire
 Farrar (Dr W. V.), Homeland, Navigation Rd, Altrincham, Cheshire
 Feibleman (Prof. J. K.), 124 National Bank of Commerce Building, New
 Orleans, 12, La, U.S.A.
 Feyer (Dr Dorothy), 184 Walm Lane, London, N. W.2
 Freed (Dr J. M.), Pine Hill, Hazlemere, nr. Wycombe, Bucks
 Freeth (Dr R. A.), O.B.E., F.R.S., 185 Colherne Court, Redcliffe Gardens,
 London, S.W.5.
 Furstenheim (Dr W.), 8 Vineyard Hill, Wimbledon, London S.W.19

MEMBERS OF THE PHILOSOPHY OF SCIENCE GROUP

- Gellner (E.), The London School of Economics, London, W.C.2
 Gibson (The Hon. Lord Robert), Shawburn, 443 Lanark Rd, Juniper Green, Midlothian
 Gillen (Dr H. W.), The University of Mississippi, Medical Center, Jackson, Miss., U.S.A.
 Goddard (S. C.), 69 Weighton Rd, Harrow, Middlesex
 Good (Dr I. J.), 25 Scott House, Princess Elizabeth Way, Cheltenham
 Gooddy (Dr W.), University College Hospital, Gower St, London, W.C.1
 Gordon (Dr Rosemary), 111 Gloucester Place, London, W.1
 Gould (Dr J.), 45 Wimpole St, London, W.1
 Grant (Dr C. K.), Dept of Philosophy, The University, Nottingham
 Greenaway (F.), The Science Museum, London, S.W.7
 Gregory (C. C. L.), Institute for the Study of Mental Images, Gally Hill, Church Crookham, Hants.
 Gregory (Prof. F. G.), F.R.S., 8A Worsley Rd, London, N.W.3
 Gregory (J. C.), Mount Hotel, Clarendon Rd, Leeds 2
 Grossbard (Dr E.), Grassland Research Institute, Hurley, nr. Maidenhead
- Hall (J. A. P.), 1 Avon Rd, London, E.17
 Halsbury (The Rt Hon. The Earl of), National Research Development Corporation, 1 Tilney St, London, W.1
 Hamilton (Dr S. B.), 17 Littleheath Rd, Selsdon, South Croydon
 Hansford W. E. J.), Suncroft, Gorringe Valley Rd, Lower Willington, nr. Eastbourne, Sussex
 Hanson (Dr N. R.), The University, Bloomington, Indiana, U.S.A.
 Harper (Dr R.), 38 Hollin Lane, Leeds 16
 Harris (F. T. C.), Middlesex Hospital Medical School, Cleveland St, London, W.1
 Harrison (Roger D.), 26 Cavendish Place, Newcastle upon Tyne, 2
 Hart (Dr I. B.), O.B.E., Lynwood, Rosemary Lane, Thorpe, Surrey
 Hasted (Dr J. B.), 59 Palace Gardens Terrace, London, W.8
 Hawton (H.), Burbank, Barnet Lane, Elstree, Herts
- F Hayek (Prof. F. A.), c/o Committee on Social Thought, University of Chicago, 1126 East 59th St, Chicago 37, Ill., U.S.A.
- F Heathcote (Mrs C. M. A.), 80 Colney Hatch Lane, London, N. 10
 F Heathcote (Dr N. H. de V.), University College, London, W.C.1
 Herbert (Rev. A.), 65 Watson Avenue, East Grange, New Jersey, U.S.A.
 Hesse (Dr Mary B.), Dept of History and Philosophy of Science, University College, London, W.C.1
 Hieger (Dr I.), Chester Beatty Research Institute, Royal Cancer Hospital, Fulham Rd, London, S.W.3
 Hock (Miss A. M.), 45 Kennerley Rd, Stockport, Cheshire
 Hodgson (Dr P. E.), 2 The Spinney, Streatham, London, S.W.16
 Hunter (G. B. E.), Dept of Philosophy, The University, Leeds 2
- F Hutten (Dr E. H.), Dept of Physics, Royal Holloway College, Englefield Green, Surrey

MEMBERS OF THE PHILOSOPHY OF SCIENCE GROUP

Idoniboye (B. E.), c/o Fr Ganzler, Heidelberg, Zeutshaul 26

Jackson (R. B.), The Cottage, 9 The Grove, London, N.6

Jefferson (Prof. Sir Geoffrey), Dept of Neuro-Surgery, Royal Infirmary,
Manchester 13

Jeffreys (Prof. Sir Harold), F.R.S., St John's College, Cambridge

F Johnson (Dr M. C.), 130 Witherford Way, Selly Oak, Birmingham 29

Jones (A. M.), 33 Grove Park Rd, Mottingham, London, S.E.9

Jones (D. C.), 231 Manley Rd, Manchester 21

F Kapp (Prof. R. O.), Kennedy & Donkin, 12 Caxton St, London, S. W.1

King (H. C.), 18 Sutton Avenue, Slough, Bucks

King (Miss P. H. M.), Flat 2, 37 Great Cumberland Place, London, W.1

Kneale (W. C.), Exeter College, Oxford

Knox (W. C.), Inglemere, Dagden Rd, Shalford, nr. Guilford, Surrey

Koenigsberger (Dr H. G.), Dept of History, The University, Manchester 13

Koestler (A.), Long Barn, Weald, Kent

Körner (Prof. S.), The University, Bristol 8

Lambert (E. W.), 106 Talbot St, Moss Side, Manchester 16

Ledermann (Dr E.), 18 Dawson Place, London, W.2

le Fèvre (E. J.), Queen Mary College, Mile End Road, London, E.1

Lejewski (C.), Flat 5, 12 Queens Gardens, London, W.2

F Lilley (Dr S.), Clovelly, Sandhills Lane, Barnt Green, Worcs

Longstaff (Dr Jean V. L.), 14 Seaton Close, Whitton, Middlesex

Lowenstein (Dr O. E.), F.R.S.E., Dept of Zoology, The University, Birmingham 15

MacDonald (Dr D. K. C.), Division of Pure Physics, National Research Council
Sussex Drive, Ottawa, Canada

MacKay (Dr D. M.), Dept of Physics, King's College, London, W.C.2

F Mason (Dr S. F.), Dept of Chemistry, The University, Exeter

F Mayo (Dr B.), The University, Edmund St, Birmingham 3

Mays (Dr W.), Dept of Philosophy, The University, Manchester 13

F McCrea (Prof. W. H.), Dept of Mathematics, Royal Holloway College, Engle-
field Green, Surrey

McKerrow (Dr J. C.), 40 Cartwright Gardens, London, W.C.1

F McKie (Dr D.), University College London, W.C.1

Meredith (Prof. G. P.), Dept of Psychology, The University, Leeds 2

F Miller (Dr A. R.), Gonville & Caius College, Cambridge

Miller (Dr E.), 13 Harley St, London, W.1

Moholy (Mrs L.), 127 Sloane Street, London, S.W.1

Morris (B. S.), 19 Springfield Rd, St John's Wood, London, N.W.8

Morris (J. F.), Dept of Psychology, The University, Manchester 13

Mumford (L. S.), 102 Alderman's Hill, London, N.13

North (J. D.), The Croft, Church St, Gildersome, nr Leeds

MEMBERS OF THE PHILOSOPHY OF SCIENCE GROUP

- O'Connor (Prof. D. J.), Dept of Philosophy, The University, Liverpool
 Oldfield (Lady Kathleen), The University, Reading
 F Owen (Dr E. C.), The Hannah Dairy Research Institute, Kirkhill, Ayr
- F Paneth (Prof. F. A.), F.R.S., Max-Planck Institut fur Chemie, Mainz, Saarstr.
 23, Germany
 Paneth (Dr H. R.), Chelsea Polytechnic, Manresa Rd, London
 Parks (Miss K. E.), 30 Cannons Court, Stonegrove, Edgware, Middlesex
 Parsons (J. D.), 2 Beachview Terrace, Greystones, Co. Wicklow
- F Partington (Prof. J. R.), M.B.E., 211 Mill Rd, Cambridge
 Pimm (A. D. W.), 5 Oakhill Rd, Orpington, Kent
- F Pirenne (Dr M. H.), University Laboratory of Physiology, Oxford
 Pirie (Dr N. W.), F.R.S., Rothamsted Experimental Station, Harpenden,
 Herts
 Pledge (H. T.), The Grange, Woodlands Rd, Redhill, Surrey
 Polanyi (Prof. M.), F.R.S., Faculty of Economic & Social Studies, The Univer-
 sity, Manchester 13
 Pollock (A. F. Seton), 76 Berkeley Avenue, Reading
 Poole (H. W.), 339 Westbourne Grove, Westcliffe-on-Sea, Essex
- F Popper (Prof. K. R.), London School of Economics, London, W.C.2
 Potter (O. E.), 20 Galbraith Rd, E. Didsbury, Manchester 20
 Price (Dr D. J.), 18 Maid's Causeway, Cambridge
 Price-Williams (D. R.), The London School of Economics, London, W.C.2
- F Raven (The Rev. Cannon C. E.), 10 Madingley Rd, Cambridge
 Ravetz (Dr J. R.), 44½ Claypath, Durham
- F Rawlins (F. I. G.), Dept of Science, National Gallery, London, W.C.2
 Rees (D. E.), Penwalis, Fishguard, Pem
 Reinhold (Dr Margaret), National Hospital, Queen Square, London, W.C.1
- F Ritchie (Prof. A. D.), Dept of Philosophy, The University, Edinburgh
 Robertson (J. F.), Kirby Hall, Kirby Bellars, Leics
 Robertson (Dr J. H.), School of Chemistry, The University, Leeds 2
 Robson (T. G.), Addlestone Manor, Stanley, Stoke-on-Trent
 Rogers (Dr H. J.), 55 Holden Rd, London, N.12
 Rogers (Dr Ruth H.), Red Gables, Knoll Rd, Camberley, Surrey
 Rosenfeld (Prof. L.), 215 Old Hall Lane, Fallowfield, Manchester 14
 Ross (Dr C.), 162 Chanctonbury Way, London, N.12
- H Russell (The Rt Hon. The Earl), O.M., F.R.S., Plas Penrhyn, Penrhynde-
 draeth, Merionethshire
- F Russell (Rev. J. L.), Heythorpe College, Chipping Norton, Oxford
 F Ryle (Prof. G.), Magdalen College, Oxford
- Sabra (Dr A. H.), Faculty of Arts, Farouk I University, Alexandria, Egypt
 Sachs (Dr A.), 72 Wall St, New York City 5, N.Y.
 Sage (A. M.), Steyning, 33 Marlborough Hill, Harrow
 Schrödinger (Prof. E.), The University, Vienna
 Self (Sir Henry), 16 Vernon Terrace, Brighton

MEMBERS OF THE PHILOSOPHY OF SCIENCE GROUP

- Serebiriakoff (V.), Flat 1, No. 6 The Paragon, Blackheath, London, S.E.3
 Sewell (E. J.), 63 Hymers Avenue, Hull
 Shilton (R.), Chemistry Dept, Memorial University, St John's, Newfoundland, Canada
- F Silver (Dr S.), Director of Research, Federated Foundries Ltd, 75 Hawthorn St, Glasgow, N
- Sinclair (Dr H. M.), Magdalen College, Oxford
- F Singer (Prof. C.), Kilmarth, Par, Cornwall
- F Singer (Mrs D. Whaley), Kilmarth, Par, Cornwall
- Singer (Dr Konrad), Royal Holloway College, Surrey
- Skymer (A. C. R.), 18A Longridge Rd, London, S.W.5
- Slater (Dr N. B.), 3 Grosvenor Terrace, Leeds 6
- Smythies (Dr J. R.), Psychological Laboratory, Cambridge
- Stead (The Rev. G. C.), Keble College, Oxford
- Stevens (C. C.), Friars, Herongate, Essex
- Stonier (Dr A. W.), University College, London, W.C.1
- Stopes-Roe (H. V.), Peaveley House, Haslingfield, Surrey
- Stoves (Dr J. L.), Little Croft, 23 Lower Paddock Rd, Oxhey, Herts
- F Stratton (Prof. F. J. M.), F.R.S., Gonville & Caius College, Cambridge
- Tanner (Mrs R. C. H.), Imperial College, London, S.W.7
- Tarkowski (Z.), Dept of Psychology, Birkbeck College, London, W.C.1
- Taylor (Dr E. G. R.), Ralphs Ride, Bracknell, Berks
- Thomson (A. G.), 148 Mill Lane, London, N.W.6
- Thomson (R. H. G.), 3 The Chase, Churt, Surrey
- F Thorpe (Dr W. H.), Jesus College, Cambridge
- Timonen (J.), 12 Witley Court, Woburn Place, London, W.C.1
- Topley (B.), Basset Manor, Checkendon, nr. Reading, Berks
- Toulmin (Prof. S. E.), Dept of Philosophy, The University, Leeds 2
- Tucker (J. W.), 112 Southill Park, London, N.W.3
- Turner (Dr H. D.), 44 Rushley Drive, Dore, Sheffield
- Wake (Dr W. C.), Hyle, Clive, Shrewsbury, Salop
- Walshe (Dr F. M. R.), F.R.S., 11/12 Wimpole St, London, W.1
- Warburton (F. W.), Dept of Education, The University, Manchester 13
- Ward (E. P.), 1 Garden Avenue, Mitcham, Surrey
- Wardlaw (Prof. C. W.), Dept of Botany, The University, Manchester 13
- Wareing (P. F.), Dept of Botany, The University, Manchester 13
- Wartnaby (J.), 42 Heathfield Gardens, London, W.4
- Wason (P. C.), 20 Foxes Dale, Blackheath, London, S.E.3
- Watkins (J. W. N.), London School of Economics, London, W.C.2
- Weaver (Dr W.), Rockefeller Foundation, 49 West 49th St, New York City, N.Y.
- Webster (D.), 2 Gunter Grove, London, S.W.10
- F Weldon (Dr T. W.), Magdalen College, Oxford
- Wendtner (K.), 10 Porchester Square, London, W.2
- Westfall (R. S.), 155 Sussex Gardens, London, W.2

MEMBERS OF THE PHILOSOPHY OF SCIENCE GROUP

- Whitrow (Mrs A. M.), 6 Albert Mansions, Albert Bridge Rd, London S.
W.11
- F Whitrow (Dr G. J.), Dept of Mathematics, Imperial College, London, S.W.7
- F Whyte (L. L.), 93 Redington Rd, London, N.W.3
- Wiener (Prof. P. P.), c/o *Journal of the History of Ideas*, The City College, New
York 31, N.Y.
- F Wightman (Dr W. P. D.), F.R.S.E., 12 Anderson Drive, Aberdeen
- Williams (Dr G. M.), Red Acre, Macclesfield Rd, Alderley Edge, Cheshire
- Williamson (Miss E. M.), Trumpeter's House, Old Palace Yard, Richmond
- Winter (Dr H. J. J.), 43 Tollards Rd, Countess Weir, Exeter Kingsteignton,
Newton Abbot, Devon
- Wisdom (Dr J. O.), The London School of Economics, London, W.C.2
- F Withers (R. F. J.), Middlesex Hospital Medical School, Cleveland St, London,
W.1
- Wood (Dr R. H.), 290 Hempstead Rd, Watford, Herts
- F Woodger (Prof. J. H.), Middlesex Hospital Medical School, London, W.1
- Wren-Lewis (J. P.), 139 Holland Rd, London, W.14
- Wright (Dr F. I.), 49 Wellington Rd, Wealdstone, Middlesex

